

### **REMARKS**

This is in response to the Office Action mailed on December 28, 2006. Claims 1, 4, 9, 13, 24-35 are amended. Claims 1-35 are pending in this application.

#### **§101 Rejection of the Claims**

Claims 24-35 were rejected under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter. Specifically, the Office indicated that claims 24-35 are directed to non-statutory subject matter because “computer readable media” includes “data signals” as defined in the specification at ¶ [0054]. Applicant has amended claims 24-35 such that the machine-readable medium is a “physical machine-readable medium.” Thus, Applicant submits that such claims are directed statutory subject matter and that the rejection of claims 24-35 under 35 USC § 101 has been overcome.

#### **§102 Rejection of the Claims**

Claims 1-35 were rejected under 35 USC § 102(b) as being anticipated by Johnson, P.K., et al. (hereinafter referred as Johnson) (WO 00/18162). To sustain a 35 USC § 102 rejection, each element of a rejected claim must be disclosed in the cited document as set forth in the Office Action.

#### **Claims 1-4, 13-19 and 24-27**

Among the differences, claims 1 and 24 (as amended) recite “generating a digital signature of the data with a cryptographic key having a value that is equal to the ephemeral value. Among the differences, claim 13 (as amended) recites “a signature logic to retrieve at least part of the data from the storage medium and to generate a cryptographic hash across the at least part of the data with a cryptographic key having a value that is equal to the ephemeral value.”

The Office indicated that the generating of the digital signature is disclosed by Johnson at page 6, lines 25-33 and Figs. 2-3. The Office is equating the ephemeral value as recited in claim 1 with the nonce 204 illustrated in Fig. 2. The recited section of Johnson does not generate a digital signature with a cryptographic key having a value with to the value of the nonce 204.

Rather, this section of Johnson relates to having the nonce 204 being concatenated to the embedded software. This concatenation forms a pre-image 208B, which is then hashed.

In one embodiment, nonce 204 and the embedded software are concatenated by concatenator 206B to form a pre-image 208B for processing by hash function 210B.

Johnson at page 6, lines 28-29.

In other words, the nonce 204 is part of the data being hashed. Johnson does not disclose that the value of the nonce 204 is used as the cryptographic key. Because Johnson does not disclose all of the claim limitations, Applicant respectfully submits that the rejection of claims 1, 13 and 24 under 35 USC § 102 has been overcome. Because claims 2-4, 14-19 and 25-27 depend from and further define claims 1, 13 and 24, respectively, Applicant respectfully submits that the rejection of claims 2-4, 14-19 and 25-27 under 35 USC § 102 has been overcome.

#### Claims 5-8 and 28-31

Among the differences, claims 5 and 28 recite “generating a hash across the data using the ephemeral value as a key of the hash.” The Office indicated that the generating of the digital signature is disclosed by Johnson at page 6, lines 25-33 and Figs. 2-3. As described above, the nonce 204 (which is being equated to the ephemeral value) is not being used as the cryptographic key for performing the hash.

Because Johnson does not disclose all of the claim limitations, Applicant respectfully submits that the rejection of claims 5 and 28 under 35 USC § 102 has been overcome. Because claims 6-8 and 29-31 depend from and further define claims 5 and 28, respectively, Applicant respectfully submits that the rejection of claims 6-8 and 29-31 under 35 USC § 102 has been overcome.

#### Claims 9-12 and 32-35

Among the differences, claims 9 and 32 recite “generating a second digital signature with a cryptographic key having a value that is equal to the random number. The Office indicated that the generating of the digital signature is disclosed by Johnson in the Abstract. Claims 9 and 32

are from the perspective of the challenge device. As described above, the nonce 204 (which is being equated to the ephemeral value) is not being used as the cryptographic key for performing the hash in the responder or response device. Thus, it is inherent that the challenger is also not using the nonce to produce the verification hash digest. In particular, the challenger is using a same hash function and key as used by the responder (response device), because the challenger only authenticates the embedded software if the received hash digest (from the responder) matches the verification hash digest (generated by the challenger). Therefore, the recited section of Johnson does not disclose the generating of the second digital signature with a cryptographic key having a value equal to the random number transmitted to the remote device (the responder).

Because Johnson does not disclose all of the claim limitations, Applicant respectfully submits that the rejection of claims 9 and 32 under 35 USC § 102 has been overcome. Because claims 10-12 and 33-35 depend from and further define claims 9 and 32, respectively, Applicant respectfully submits that the rejection of claims 10-12 and 33-35 under 35 USC § 102 has been overcome.

#### Claims 13-19

The Office indicated that the generating of the digital signature is disclosed by Johnson at page 6, lines 25-33 and Figs. 2-3. As described above, the nonce 204 (which is being equated to the ephemeral value) is not being used as the cryptographic key for performing the hash. Because Johnson does not disclose all of the claim limitations, Applicant respectfully submits that the rejection of claim 13 under 35 USC § 102 has been overcome. Because claims 14-19 depend from and further define claim 13, Applicant respectfully submits that the rejection of claims 14-19 under 35 USC § 102 has been overcome.

#### **Reservation of Rights**

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any

reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

KEVIN R. DRISCOLL

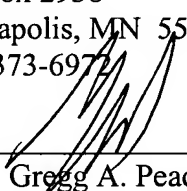
By his Representatives,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 7<sup>th</sup> day of March, 2007.

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